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imagery analysis report

(2)

# **Export Sales and Deliveries of Chinese Aircraft to Third World Countries, 1965–1984 (S)**

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Z-14098/84  
IAR-0040/84  
JANUARY 1985  
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## EXPORT SALES AND DELIVERIES OF CHINESE AIRCRAFT TO THIRD WORLD COUNTRIES, 1965-1984 (S)

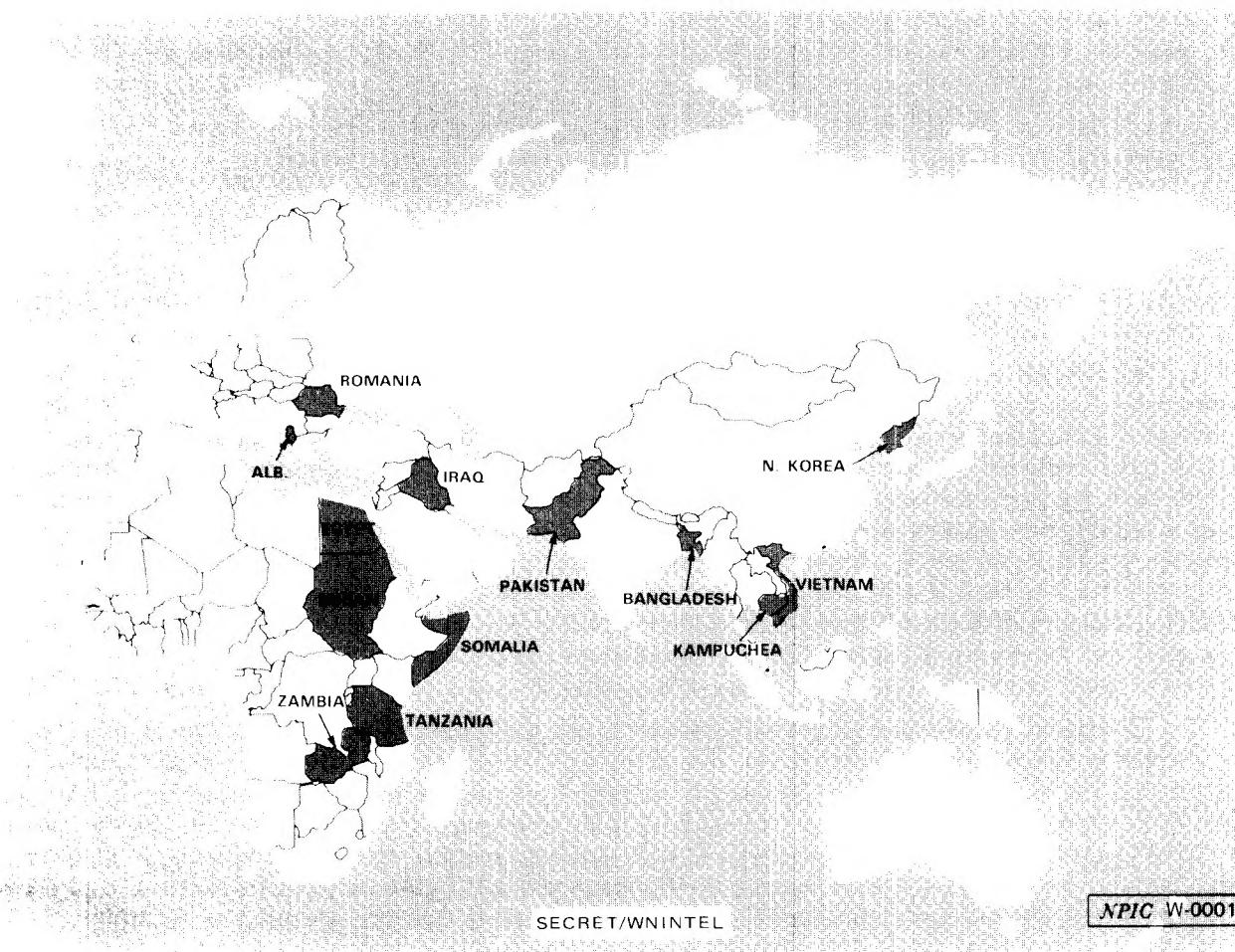
### INTRODUCTION

1. This report provides information on the sale and delivery of indigenously produced Chinese aircraft to Third World countries from 1965 to 1984. Since 1965, China has exported over 1,500 indigenously produced aircraft to 11 Third World countries in Africa, Asia, and the Middle East and to two East European countries<sup>1</sup> (Figure 1). [redacted]

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2. Early in the development of the Chinese aircraft industry, export deliveries were related to political considerations. Recent exports, however, appear to be geared more towards the generation of international currency for China's emerging aircraft industry. Currently, the major importers of Chinese fighter aircraft are Pakistan, Egypt, Iraq, and North Korea.<sup>1</sup> [redacted]

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**FIGURE 1. THIRD WORLD IMPORTERS OF CHINESE AIRCRAFT**

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3. Export deliveries have been made to the following Third World and East European countries:<sup>1</sup>

Pakistan	FARMER, FRESCO, FANTAN A, BEAGLE, MIDGET
North Korea	FARMER, FISHBED, HOUND, MAX, COLT
North Vietnam	FARMER, FRESCO
Egypt	FARMER, FISHBED
Iraq	FISHBED
Albania	FISHBED, FARMER, FRESCO, HOUND
Romania	BEAGLE
Zambia	MAX, FARMER, FRESCO
Tanzania	FARMER, FRESCO
Somalia	FARMER
Sudan	FARMER, FRESCO
Bangladesh	FARMER, FRESCO, MAX
Kampuchea	FARMER, FRESCO, BEAGLE, COLT, MAX

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4. This report includes six tables listing type, number of aircraft, and year of export deliveries to each country; a discussion of methods of delivery; two annotated maps; and selected imagery of shipping containers enroute in maritime export shipments. The type and number of aircraft listed in the tables were derived from available imagery and reports<sup>1</sup> and may not include all export shipments.

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## BASIC DESCRIPTION

### Export Delivery Procedures

5. Export deliveries from China's aircraft production plants are made using rail, sea, and air routes. Aircraft deliveries to countries adjacent to China are usually made by ferry flights while overseas deliveries are transported by rail to the port, where they are transferred to merchant ships. (S/WN)

6. Aircraft for overseas delivery by merchant ship are processed at the production plant. The first indication of an impending overseas shipment is the appearance of large, wooden aircraft shipping containers in the plant area. Shipments are usually in batches of four, eight, or 12 aircraft containers. The aircraft to be exported are partially dismantled for easier packaging, placed in the container at the final assembly building, and taken to the plant rail transshipment area, where they may remain for several days prior to rail shipment to their port of debarkation. This apparent delay at the plant transshipment area may be necessary to coordinate the arrival of the containerized aircraft at the port with the departure of the merchant ship. The limited time that the aircraft containers are at the port has lessened the probability of obtaining imagery of the containers aboard ship. Upon arrival at their destination, the containers are unloaded and usually remain at the docks for a minimum amount of time before being transported to the nearest suitable airfield for assembly. Figures 2 through 6 illustrate the export delivery sequence. (S/WN)

7. China exports aircraft by flight deliveries to Pakistan and North Korea. After initial flight testing at the production plant, the new aircraft are ferried by Chinese pilots along the most direct route to the transfer airfield near the receiving country's border. The aircraft are usually accompanied by transport aircraft. Refueling and crew rest stops are made enroute as required. At the transfer airfield, the aircraft are transferred to foreign control and flown to their final destination. The Chinese pilots are then flown back to the plant or to their home base by the transport aircraft. Figure 7 illustrates routes and provides other pertinent information regarding both flight and overseas delivery procedures. (S/WN)

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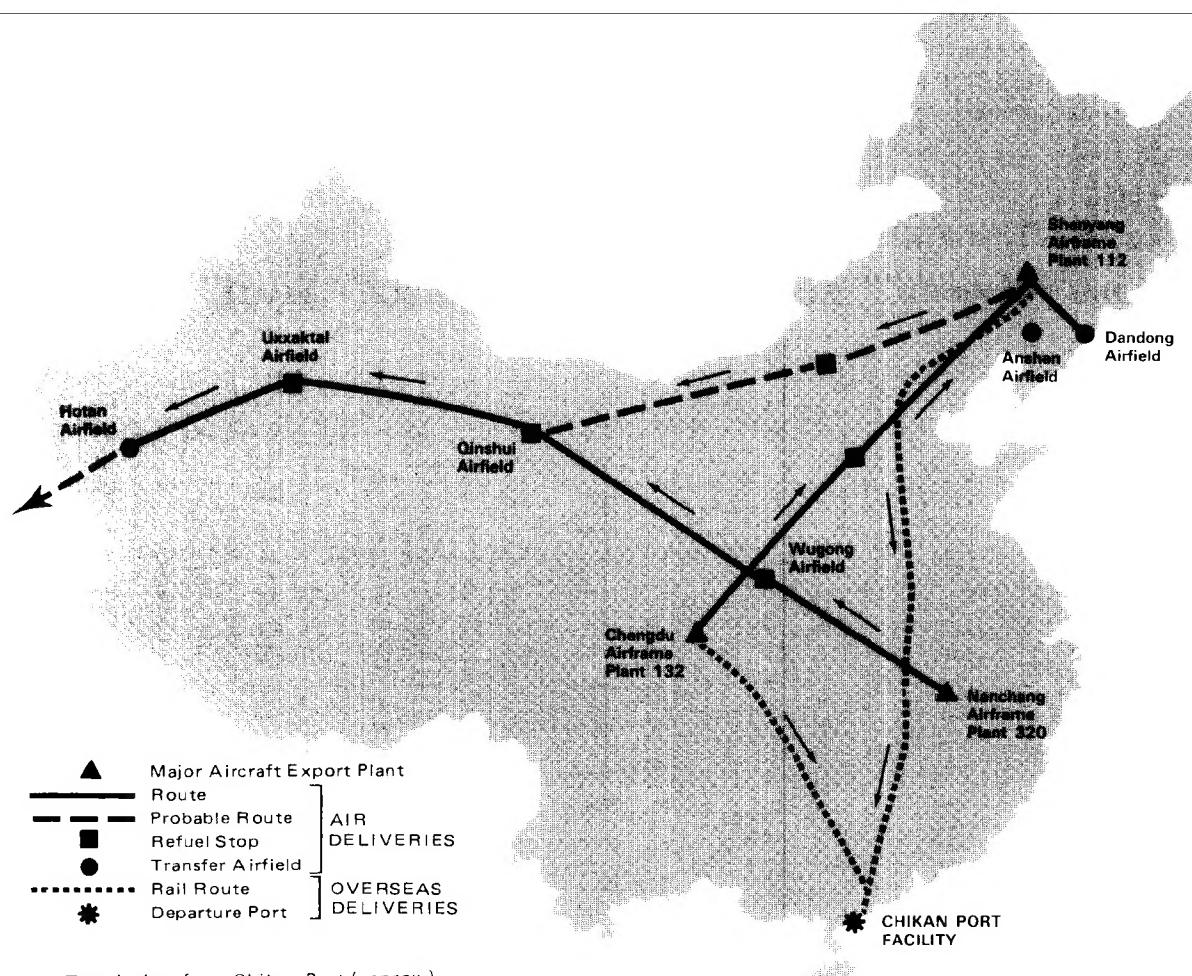
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Transit time from Chikan Port (approx.)

Weeks

Karachi, Pakistan.....	2 1/2
Alexandra, Egypt.....	3 1/2-4
Qadimah Port Facility, Saudi Arabia.....	3 1/2

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FIGURE 7. AIRCRAFT EXPORT DELIVERY ROUTES, CHINA

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## Foreign Exports

### Pakistan

8. In 1965, Pakistan was the first country to receive indigenously produced Chinese aircraft. The delivery of 85 FARMERs to Pakistan in 1967 was the largest number of FARMER aircraft exported to a country in a single year.<sup>1</sup> This sale was made during a period in which both Pakistan and China were engaged in a border dispute with India. [redacted]

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9. Pakistan continues to be a major importer of Chinese aircraft and is the only country to import the FANTAN A. Approximately 450 Chinese indigenously produced aircraft have been delivered to Pakistan since 1965;<sup>1</sup> however, an undetermined number of FARMERs have been returned to China for major overhaul in the intervening years. Table 1 lists all known deliveries of aircraft from China to Pakistan by year, aircraft type, and number. [redacted]

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10. Exports to Pakistan have been made using both air and sea routes. Chinese aircraft delivered by merchant ship are transported by rail in shipping containers from aircraft production plants to Chikan (Jiaoshuncun) Port Facility [redacted] in South China. From there, they are transported by merchant ship to Karachi Port Facility [redacted] in Pakistan. The aircraft containers are then shipped by rail to Shareea Faisal Airfield [redacted]. After the aircraft have been assembled and tested, they are flown to operational airfields throughout the country. (S/WN)

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**Table 1.**  
**Known Chinese Aircraft Deliveries to Pakistan\***

Year	FARMER	FARMER F	FRESCO**	MIDGET	BEAGLE	FANTAN A
1965	—	—	—	—	12	—
1966	—	—	—	—	—	—
1967	85	—	—	—	—	—
1968	—	8	—	4	—	—
1969	—	—	—	—	—	—
1970	—	—	—	—	—	—
1971	42	—	—	—	—	—
1972	30	—	—	—	—	—
1973	—	—	—	—	—	—
1974	—	3	—	—	—	—
1975	67	12	—	—	—	—
1976	—	5	—	—	—	—
1977	—	—	4	—	—	—
1978	16	20	—	—	—	—
1979	31	—	—	—	—	—
1980	31	—	—	—	—	—
1981	15	4	—	—	—	—
1982	10	—	—	—	—	—
1983	—	—	—	—	—	41
1984	—	—	—	—	—	13
Totals	327***	52	4**	4	12	54

\*This table was derived from reference document 1.

\*\*Pakistan has an inventory of 12 FRESCOs, probably all received from China.

\*\*\*Includes FARMERs returning from China after overhaul.

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11. China has exported aircraft to Pakistan using air routes since the mid-1960s; however, it was not until early 1983 that the first export delivery of FANTAN A aircraft was tracked on imagery from the production plant at Nanchang Airframe Plant 320 [ ] to Hotan Airfield [ ] in western China, where the transfer of the aircraft to Pakistani control was made. (S/WN)

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### North Korea

12. Since 1972, Chinese export shipments of aircraft to North Korea have increased. Prior to that time, the Soviet Union had been North Korea's main source of fighter aircraft, with China supplying only light transports. Since 1972, China has exported at least 390 aircraft, including 174 FARMERs and 40 FISHBEDs. The 40 FISHBEDs were delivered in 1982 during a period when Middle Eastern countries were in the market for FISHBED aircraft.<sup>1</sup> These deliveries indicate that China places a higher importance on North Korea than on the Middle East. China continues to support North Korea by supplying materials and technical assistance to its fledgling aircraft industry. [ ]

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13. The aircraft exported to North Korea are flown along the most convenient route from the respective production plant to either Dandong Airfield [ ] or Anshan Airfield [ ] which serve as staging bases for the transfer of the aircraft to North Korean control. Table 2 shows known aircraft deliveries to North Korea. (S/WN)

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**Table 2.**  
**Known Chinese Aircraft Deliveries to North Korea\***

Year	FARMER	MAX	COLT	FISHBED	HOUND
1965	—	—	10	—	—
1966	—	—	10	—	—
1967	—	—	33	—	—
1968	—	—	2	—	—
1972	45	—	—	—	—
1973	54	—	—	—	—
1974	—	—	—	—	12
1975	20	—	—	—	22
1976	—	—	—	—	—
1977	24	35	—	—	—
1978	31	21	—	—	—
1979	—	11	24	—	—
1980	—	—	20	—	—
1981	—	—	15	—	—
1982	—	—	—	40	—
1983	—	—	—	—	—
1984	—	—	—	—	—
Totals	174	67	114	40	34

\*This table was derived from reference document 1.

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### North Vietnam

14. China exported aircraft to North Vietnam by ferry flights from 1965 until 1975 when sales were terminated, probably for political reasons. These deliveries included FARMERs, FRESCOs, and at least four Soviet-built CABs. Table 3 shows these known Chinese-built aircraft exports. (S/WN)

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**Table 3.**  
**Known Chinese Aircraft Deliveries to North Vietnam\***

Year	FARMER	FRESCO
1965	—	17
1966	—	42
1967	—	61
1968	—	—
1969	—	—
1970	—	—
1971	—	—
1972	17	—
1973	32	—
1974	—	22
1975	—	29
Totals	49	171

\*This table was derived from reference document 1.

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### Egypt

15. Since 1975, China has capitalized on the cooling in Egyptian-Soviet political relations and has been a major supplier of replacement engines for Egypt's Soviet-built FISHBED and FARMER aircraft. To offset the loss of Soviet-supplied equipment, China had agreed to sell Egypt military hardware, which included FARMER and FISHBED aircraft. Major overhaul/maintenance of Egyptian BADGERs is also performed at Xian Airframe Plant Yanliang 172 [ ] in China. (S/WN)

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16. Egypt has imported over 90 FARMERS and at least 31 FISHBEDs since 1980.<sup>1</sup> The FARMER and FISHBED aircraft are transported from the production plants at Shenyang Airframe Plant 112 [ ] and Chengdu Airframe Plant 132 [ ] to Chikan and are then delivered by merchant ship to Al Iskandaryah (Alexandria) Port Facility [ ] in Egypt. From Alexandria, the aircraft containers are transported to the Jiyanklis Airfield [ ] for assembly. [ ]

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### Iraq

17. Iraq is the latest recipient of Chinese-built aircraft. To circumvent the Chinese-professed neutrality in the Iraq-Iran conflict, aircraft are delivered to Iraq via Saudi Arabia or Egypt. When delivered through Saudi Arabia, the aircraft arrive in shipping containers at Qadimah Port Facility [ ] and are transported by truck to King Faisal Airfield [ ] in Jordan for assembly. After flight testing, the aircraft are flown into Iraq. The first delivery of five FISHBEDs was observed at Qadimah Port Facility in November 1982. Aircraft destined for Iraq via Egypt are delivered to the Port of Alexandria, Egypt; assembled at Jiyanklis Airfield; and flown to Iraq via Jordan. At least 23 Chinese-produced FISHBEDs have been delivered to Iraq since late 1982.<sup>1</sup> [ ]

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### Albania

18. Albania was the first Communist country to enter negotiations to obtain military aircraft from China. In the mid-1960s, after Chinese and Albanian relations with the Soviet Union had been strained, China delivered at least 34 FARMERS, 28 HOUNDS, and 12 FISHBEDs to Albania by merchant ship.<sup>1</sup> This transaction was probably considered a means of cultivating Albania into the Chinese sphere of influence. The FARMER and HOUND aircraft were probably refurbished and of Soviet origin. The FISHBEDs were probably built from Soviet-supplied kits purchased by China prior to the Sino-Soviet rift. Table 4 shows the export shipments from China to Albania through 1974, the latest known shipment. [ ]

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**Table 4.**  
**Known Chinese Aircraft Deliveries to Albania\***

Year	FARMER	FRESCO	FISHBED	HOUND
1964-65	34	—	12	28
1972	—	6	—	11
1974	8	—	—	—
Total	42	6	12	39

\*This table was derived from reference document 1.

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### Romania

19. In 1975, Romania received 12 BEAGLEs from China.<sup>1</sup> No further deliveries have been made since that date.

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### African Countries

20. Export deliveries of aircraft by merchant ship have been made to Zambia and Tanzania in south-central Africa and to Somalia and Sudan in the northeastern African section of the Middle East. Table 5 shows the latest known number of Chinese aircraft exported to Africa. (S/WN)

**Table 5.**  
**Known Chinese Aircraft Deliveries to African Countries\***

Year	FARMER	FARMER F	FRESCO	MAX
<b>Somalia</b>				
1980	20	—	—	—
<b>Sudan</b>				
1978	2	—	15	—
1981	5	2	—	—
1982	5	—	—	—
<b>Tanzania</b>				
1973	17	—	3	—
1979	4	—	—	—
1980	6	—	—	—
<b>Zambia</b>				
1978	12	—	2	5
1981	5	—	—	—
Total	76	2	20	5

\*This table was derived from reference document 1.

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### South Asian Countries

21. Export shipments by merchant ship also have been made to two South Asian countries. Table 6 illustrates known shipments to Bangladesh and Kampuchea. (S/WN)

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**Table 6.**  
**Known Chinese Aircraft Deliveries to South Asian Countries\***

Year	FARMER	FARMER F	FRESCO	BEAGLE	COLT	MAX
<b>Bangladesh</b>						
1977	8	4	2	—	—	4
1981	—	2	3	—	—	—
<b>Kampuchea</b>						
1966	—	—	3	—	4	4
1978	7	—	—	4	—	—
Total	15	6	8	4	4	8

\*This table was derived from reference document 1.

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## Imagery Analyst's Comments

22. Since 1976, China's position as a major supplier of fighter aircraft to Third World countries has been greatly enhanced by the political conditions and turmoil existing in the Middle East; i.e., the Egyptian-Soviet break, Pakistan's defensive needs, and the Iraq-Iran conflict. During this period, China's immediate domestic requirements for fighter aircraft have been leveling off, enabling the Chinese aircraft industry to negotiate export contracts to provide low cost, easy-to-maintain fighter aircraft within a short period of time. On 20 October 1984, the Chinese Communist Party Central Committee made a decision to give factory managers more authority in production management and promotion of competition within the industry.<sup>2</sup> This recent decision should create a more active promotion of export sales of both fighter and transport aircraft. China will probably continue to exploit world situations to expand aircraft sales and use the capital gained for further modernization of its own aircraft industry. (S/WN)

## REFERENCES

### IMAGERY

All applicable satellite imagery acquired between January 1965 and December 1984 was used in the preparation of this report. (S/WN)

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Comments and queries regarding this report are welcome. They may be directed to [ ] East Asia Division, NPIC, [ ]

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